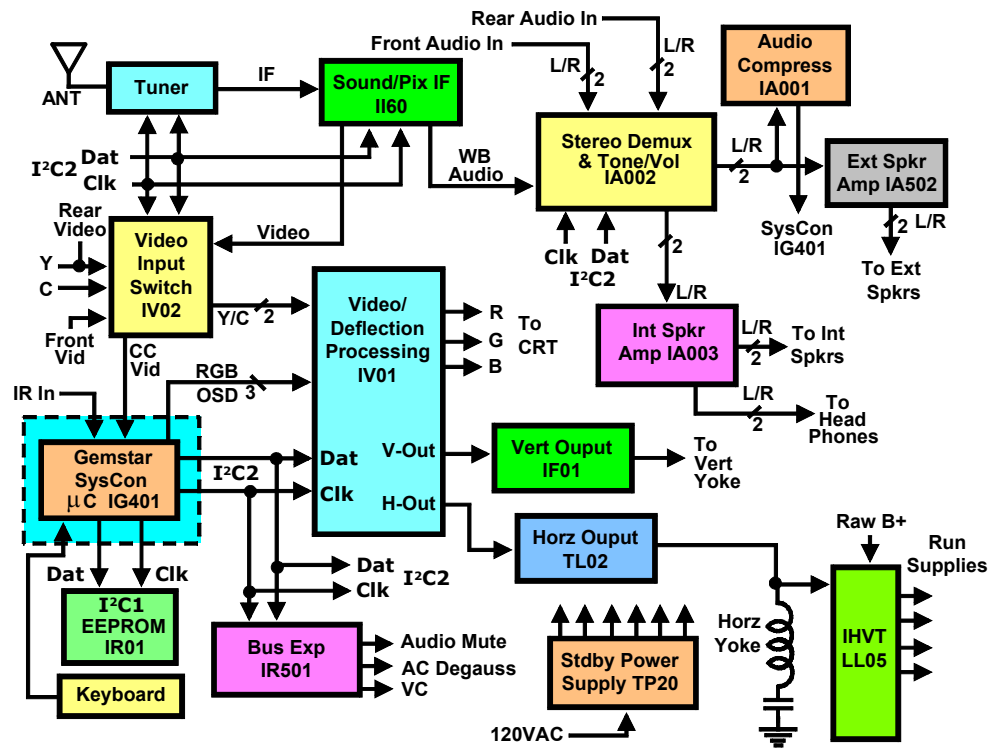




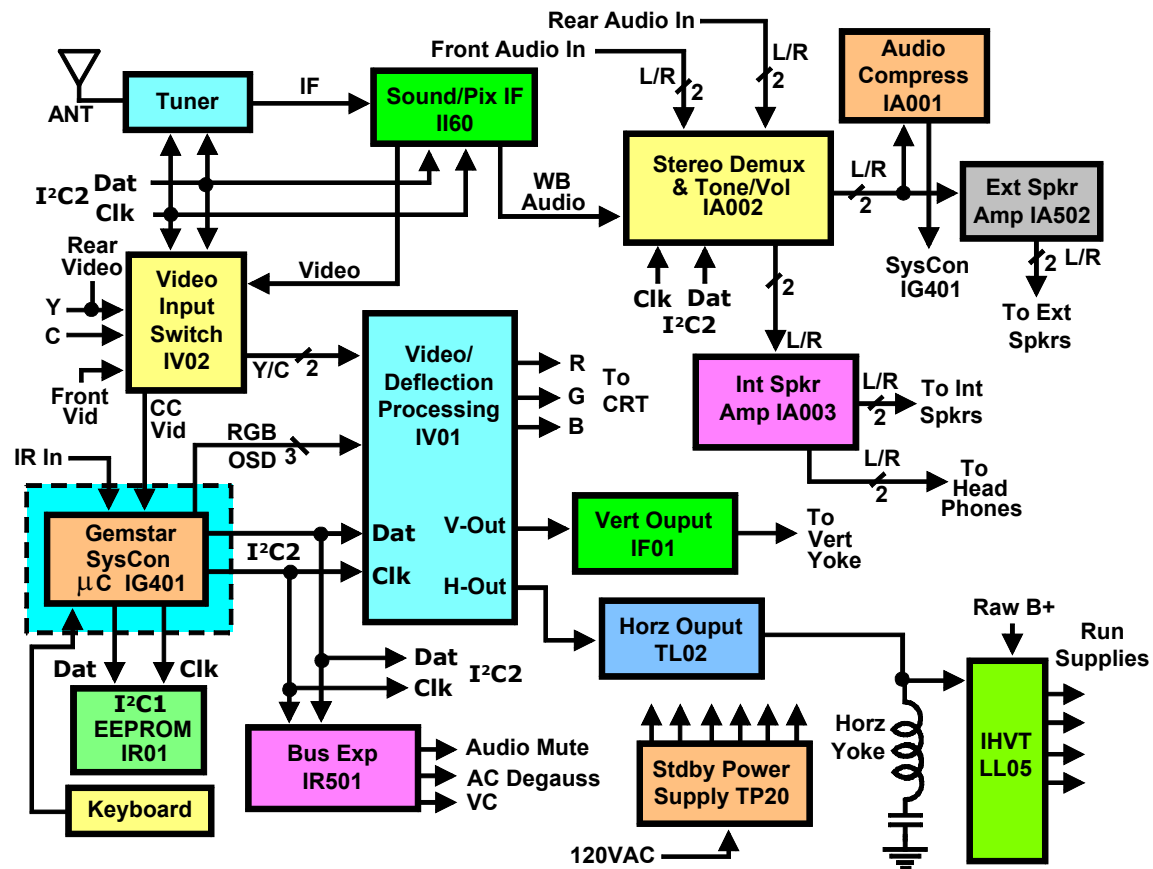
TX809 Simplified Block Diagram

TX809 Chassis Overview

The TX809 is a conventional NTSC analog color television chassis that incorporates many of the latest video features. The TX809 has both front and rear composite video (CV) and audio inputs. The chassis also features a rear Y/C (S-Video) input that provides maximum quality video reproduction. The Sound/Pix IF IC (II60) provides the composite video signal. The video/deflection processing IC (IV01) is responsible for final processing of the video signal. The RGB OSD (on-screen-display) is also input to IV01 and overlaid onto the video signal. IV01 also provides contrast, brightness, tint and color controls.

The TX809 system control microcomputer IG401 is located in the Gemstar module and controls and monitors the operation of the instrument via two (2) I²C buss. The I²C1 bus reads and writes operational data (customer and factory settings, etc.) to and from the EEPROM, IR01. The second bus (I²C2) provides control to all other areas of the chassis. The system control micro also monitors the keyboard and decodes the IR input from the remote control. The I2C2 bus is also applied to the bus expander IR501 where additional control signals for the chassis is generated.

The Sound/Pix IF IC (II60) provides the wide band audio signal. The audio circuit consists of four (4) major IC's, they are the stereo Decoder/Demultiplexor IC (IA002), an internal and external power amplifier IC's (IA502 / IA003) and the audio compressor (IA001). The Audio Compressor generates a control signal that is fed back to the system control micro to limit severe and sudden unwanted audio level changes.



TX809 Simplified Block Diagram

The standby power supply is a conventional switch mode power supply. The standby supply is on whenever the instrument is plugged into 120VAC. The run supplies are only on when the set is running and are generated via a conventional horizontal scan-derived configuration. The voltages developed by both the standby and run supplies can vary depending upon the model and its features. The video/deflection processing IC (IV01) also generates both the horizontal and vertical drive signals that are applied to the vertical and horizontal drive circuits.